UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/574,611	04/05/2006	David W. Bacon	DBI-2	4213

39703 7590 09/29/2010

C. JAMES BUSHMAN
5851 San Felipe
SUITE 975
HOUSTON, TX 77057

EXAMINER	
BASICHAS, ALFRED	
ART UNIT	PAPER NUMBER
3743	

MAIL DATE	DELIVERY MODE
09/29/2010	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/574,611	BACON, DAVID W.	
	Examiner	Art Unit	
	Alfred Basichas	3743	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *31 August 2010*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *2-21* is/are pending in the application.

4a) Of the above claim(s) *5,9-16,17/16,18-20* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *2-4,6-8,17/1,21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date ____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 2, 4-6, and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Hunter (4,080,150), which shows all of the claimed limitations. For example, a source of hydrogen 49, oxidizing gas O (see at least fig. 1), an igniter assembly 18 comprising an elongated tubular housing 32, a catalyst 16 for production of a flame F. Hunter further shows a hydrogen feed tube 25 with venturi type nozzle 28

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. Claims 3 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hunter (4,080,150) in view of Berry (3,680,635). Hunter discloses substantially all of the claimed limitations including a platinum group metal utilized in the catalytic material. Nevertheless, Hunter fails to specifically recite the catalyst in the form of a tube and the source of air forced. Berry teaches catalyst in the form of a tube 38 for igniting the gas and the source of air forced (see at least air compressor in fig. 4). Berry teaches that such an arrangement provides for avoiding problems of poor mixing (see at least col. 2, lines 35-41). Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate these limitations as taught by Berry into the invention disclosed by Hunter, so as to provide for enhanced mixing.

6. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hunter (4,080,150) in view of Berry (3,680,635), which combination teaches substantially all of the claimed limitations. Nevertheless, the combination fails to specifically recite plural igniter assemblies. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have incorporated plural igniters into the invention disclosed by Hunter and Berry since it has been held that to provide duplicate parts for

multiplied effect is not the type of innovation for which a patent is granted. *St. Regis Paper Co. v. Bemis Co., Inc.*, 193 USPQ 8, 11. As regards the specific arrangement thereof, the claimed location/orientation is an obvious modification based on design choice, and depends on spatial considerations. Accordingly, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate it into the invention disclosed by Hunter and Berry, so as to provide for spatial considerations.

7. Claim 17/1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hunter (4,080,150) in view of Berry (3,680,635), which combination teaches substantially all of the claimed limitations including the hydrogen containing gas exhibiting an inherent pressure. Nevertheless, Wellington fails to specifically recite the claimed pressure range. While Wellington is silent on the specific measurements, it has been held that "When there is a design need or market pressure to solve a problem and there are a finite number of identified, predictable solutions, a person of ordinary skill has good reason to pursue the known options within his or her technical grasp. If this leads to the anticipated success, it is likely the product not of innovation but of ordinary skill and common sense. In that instance the fact that a combination was obvious to try might show that is was obvious under § 103." *KSR Int'l Co. v. Teleflexlnc.*, 127 S.Ct. 1727, 1742, 82 USPQ2d 1385, 1396 (2007). As for the specific range, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have incorporated the claimed range into the invention disclosed by Wellington since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable values or ranges involves only routine skill in the

art. *In re Aller*, 105 USPQ 233; *In re Swain,* 156 F.2d 239. See also Peterson, 315 F.3d at 1330, 65 USPQ2d at 1382 ("The normal desire of scientists or artisans to improve upon what is already generally known provides the motivation to determine where in a disclosed set of percentage ranges is the optimum combination of percentages.").

Response to Arguments

8. Applicants' arguments with regard to the rejected claims have been considered, but are moot in view of the new grounds for rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alfred Basichas whose telephone number is 571 272 4871. The examiner can normally be reached on Monday through Friday during regular business hours.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Tech Center telephone number is 571 272 3700.

September 28, 2010

/Alfred Basichas/
Primary Examiner, Art Unit 3743